

Claims

1. Cutting device for plants, particularly lawnmower, with at least one rotating blade (4a) which cooperates with a stationary counter-blade (13a), wherein the blade is curved and arranged obliquely around its rotation axis, but however runs in a plane and this plane has an angle with respect to the rotation axis of at most 45°, preferably at most 35°, characterized in that the at least one blade (4a) and/or the counter-blade (13a) are respectively replaceably arranged in a blade support (3a or 15a).

2. Cutting device according to claim 1, characterized in that the blade (4a) and/or the counter-blade (13a) is held by a latch or snap connection in its respective blade support (3a, 14a).

3. Cutting device according to claim 1, characterized in that the blade (4a) and/or the counter-blade (13a) is mounted in at least one slot of its respective blade support (3a, 14a).

4. Cutting device according to claim 1, characterized in that the blade (4a) is insertable approximately transversely to its longitudinal extent into at least one slot (5a) of its blade support (3a) and is then lockable in this slot by an approximately axial displacement.

5. Cutting device according to claim 1, characterized in that the blade (4a) is insertable approximately transversely to its longitudinal extent into at least one slot (5a) of its blade support (3a) and is lockable therein by elastic latching elements (51a, 51b).

6. Cutting device according to claim 3, 4 or 5, characterized in that plural slots (5a) are provided in succession in a peripheral direction, preferably running approximately axially.

7. Cutting device according to claim 1, characterized in that the blade supports (3a) are connectable to a drive shaft (30) by a plug-in connection, preferably by axially running slots (20a).

8. Cutting device according to claim 1, characterized in that the blades (4a) extend only over a peripheral angle of at most 150°, preferably at most 100°, of an imaginary circular arc around the rotation axis.

9. Cutting device according to claim 1, characterized in that in a radial plane of the rotation axis more than two, preferably more than three, blades (4a) are arranged in succession in a peripheral direction.

10. Cutting device according to claim 1, characterized in that axially adjacent
5 blades (4a, 4b, 4c) are oriented partially non-parallel, but oppositely to one another.

11. Cutting device according to claim 1, characterized in that the blade (4a) and/or the counter-blade (13a) is connected, at its edge respectively situated opposite the cutting edge, to a guide element (6a, 15a) and this guide element (6a, 15a) is replaceably arranged in the blade support (3a, 14a).

10 12. Cutting device according to claim 11, characterized in that the guide element (6a) has latching elements, particularly elastic fingers (51a, 51b), which positively latch to the blade support (3a).

13. Cutting device according to claim 12, characterized in that two latching elements, particularly fingers (51a, 51b), are provided, respectively latching in opposite
15 directions.

14. Cutting device according to claim 12, characterized in that the latching elements, particularly fingers (51a, 51b), latch into slot regions (50a) of the blade support (3a), and in that in the latched state they partially project from the slot regions (50a).

15. Cutting device according to claim 11, characterized in that the guide
20 element (6a, 15a) are made of plastic.

16. Cutting device according to claim 1, characterized in that the blade (4a) and/or the counter-blade (13a) are made of a metal strip, particularly a spring steel strip.

17. Cutting device according to claim 15, characterized in that the blade (4a, 13a) is injection molded around its blade back from the guide element (6a, 15a), made of
25 plastic.

18. Cutting device according to claim 1, characterized in that the blade (4a) and/or the counter-blade (13a) are relatively biased against each other by spring elements (12a).

19. Cutting device according to claim 18, characterized in that the spring
30 elements (12a) for biasing the blade (4a) are arranged between the blade support (3a) and the guide element (6a).

20. Cutting device according to claim 18 or 19, characterized in that the spring elements (12a) are formed directly on the blade support (3a) and/or the guide element (6a).

21. Cutting device according to claim 1, characterized in that the counter-
5 blade is divided into plural axially adjacent segments (13a, 13b, 13c).

22. Cutting device according to claim 21, characterized in that the counter-blade segments (13a, 13b, 13c) are respectively individually resiliently mounted.

23. Cutting device according to one of the foregoing claims, characterized in that the blades (4a) are not arranged in oblique planes around the rotation axis, but run in
10 spiral form around the rotation axis.